

# **COUNTING THE CORRELATION: AN INVESTIGATION INTO THE RELATIONSHIP BETWEEN ASSOCIATES DEGREES IN ACCOUNTING AND RELATED SERVICES AND XKCD SEARCHES**

**Christopher Hall, Andrew Thomas, Giselle P Thornton**

Institute for Studies

In this paper, we delve into the curious correlation between the number of Associates degrees awarded in Accounting and Related Services and Google searches for the beloved webcomic 'xkcd'. Utilizing data from the National Center for Education Statistics and Google Trends covering the years 2011 to 2021, our research team has uncovered a striking correlation coefficient of 0.9875990, with a p-value well below the coveted 0.01 threshold. The findings suggest that there may be an unexpectedly strong connection between the number-crunching world of accounting and the humorous musings of xkcd, raising questions that demand further exploration and pun-intended contemplation.

It is often said that in the vast and wacky realm of academic research, the most unexpected connections can be found lurking in the most mundane of data sets. Our investigation delves into one such coiled mystery, the tantalizing correlation between the number of Associates degrees awarded in Accounting and Related Services and the humble yet infinitely entertaining Google searches for that wellspring of clever comic musings, 'xkcd'. This quest for correlation combines the rigors of quantitative analysis with the sly grin of serendipitous discovery; a combination that might not always balance perfectly, but certainly keeps things interesting.

The insatiable quest to quantify and interpret statistical relationships often leads us down rather peculiar paths. Here we find ourselves wandering through the labyrinth of educational data from the

National Center for Education Statistics, and meandering amidst the digital trails of Google Trends, all in the name of unraveling a nexus that seems to veer between the realms of the left brain and right brain, the analytical and the comedic, the abacus and the punchline.

Indeed, as we embark on this statistical escapade, the ears and eyes of our trusty research team began to twitch with amusement and curiosity at the patterns and pathways we charted. As we grasp our scatter plots and peer intently at the dancing dots of correlation, we can't help but marvel at the unexpected camaraderie of our seemingly unrelated variables. It is as if the numbers and web searches themselves are playfully nudging us toward potential newfound truths, or perhaps just giggling at the mischief they lead us into.

With this study, we aim to shed light on the whimsical connections that hide amidst the austere facade of data, hoping to tickle both the fancy of the academic community and the funny bone of those who appreciate the statistical absurd. Our findings may just provoke a knowing chuckle and an eyebrow raise, or perhaps they will open doors to further investigations that stretch the boundaries of conventional understanding - or at least expand our appreciation for the intricacies of causation and correlation, paired with a dash of lightheartedness.

## LITERATURE REVIEW

The remarkable relationship between Associates degrees awarded in Accounting and Related Services and Google searches for 'xkcd' has not been extensively explored within the existing literature. However, a few studies have touched upon themes that may be tangentially related to our investigation. Smith et al. found a significant positive correlation between the enrollment rates in accounting programs and the consumption of pun-filled media in their paper "Number Crunching and Punning: Unexpected Ties in Accounting Education" (2015). Meanwhile, Doe's analysis in "The Whimsical World of Webcomics: A Statistical Study" (2018) provided valuable insights into the demographics of webcomic enthusiasts, offering potential implications for our understanding of the xkcd phenomenon.

Delving into the realm of non-fiction literature, Brown's "Accounting for Laughter: The Hidden Calculus of Comedy" (2019) and Gray's "Debugging the Data: Statistical Anomalies and Internet Culture" (2017) both offered intriguing perspectives on the intersection of numbers and internet humor. These works, while not directly addressing our specific correlation, hint at the underlying complexities that may underpin the unexpected connection we seek to explore.

Turning to fiction, the works of David Numbers' whimsically titled novel "The Quirky Quotient: A Tale of Numbers and Nonsense" (2016) and Alice Equations' "The Calculated Comic: An Adventure in Data and Drollery" (2020) inject humor and wit into the world of quantitative analysis, marrying the esoteric world of accounting with the levity of comedic entertainment.

In the name of comprehensive research, the authors indulged in extensive viewing of shows such as "Numbers," "The Big Bang Theory," and "Parks and Recreation" for potential clues, subtle references, or just purely for the comedic relief they may provide amidst the depths of statistical analysis.

As we navigate this rather peculiar blend of academic literature and pop culture, we recognize that the laughter-inducing nature of 'xkcd' paired with the disciplined world of accounting presents a tapestry of intriguing connections that merit further examination. In the spirit of curiosity and a hint of absurdity, we embark on this quest to unravel the delightful mysteries that emerge through the intersection of number-crunching and comic relief.

## METHODOLOGY

To wade into the murky waters of unraveling the mysterious connection between Associates degrees awarded in Accounting and Related Services and Google searches for 'xkcd', our research team donned our virtual waders and set off upstream, armed with a potent blend of statistical arcana and a fervent hope for a few chuckles along the way. Our primary data sources, the National Center for Education Statistics and Google Trends, offered us not only a deluge of information but also a sturdy raft upon which to navigate the turbulent currents of correlation.

Firstly, to ascertain the number of Associates degrees awarded in

Accounting and Related Services, we donned our virtual sleuthing hats and combed through the labyrinthine databases of the National Center for Education Statistics. With a keen eye for detail and a willingness to navigate the statistical thickets, we compiled a comprehensive dataset spanning the years 2011 to 2021, utilizing a rigorous protocol to record and verify the numerical bounty of degrees bestowed upon number-crunching aficionados.

Simultaneously, we embarked upon a parallel odyssey through the digital realm, tracking the ebbs and flows of Google searches for 'xkcd' using the intuitive treasure map offered by Google Trends. With careful consideration for seasonal variations and fleeting fads, we captured the zeitgeist of internet users' comedic quests from 2011 to 2021, projecting our metaphorical butterfly net into the ever-shifting winds of web searching.

With bountiful datasets in hand, fortified with statistical jargon and a sprinkle of statistical fairy dust, we unfurled the hallowed scrolls of correlation analysis. Armed with our trusty statistical software and an unyielding determination to extract meaningful insights (and perhaps the occasional chuckle) from the data, we calculated the Pearson correlation coefficient to quantify the degree of association between Associates degrees in Accounting and Related Services and 'xkcd' searches.

In the spirit of methodological whimsy, we ensured that our analysis encompassed a series of waggish sensitivity tests and jocular robustness checks to account for potential confounding variables or mischievous anomalies that might have sought shelter within our datasets. Our statistical sleuthery persistently sought to weed out any statistical imposters that dared cast a shadow upon our path to discovery.

Finally, we constructed a time-series plot that artfully traced the undulating waves

of correlation between our beguiling variables, presenting a visual tapestry that whispered both analytical profundity and comedic mischief in the language of scatter plots and trend lines.

In the end, armed with a flourish of statistical pizzazz and a mischievous twinkle in our collective eye, we emerged from the numerical labyrinth, tracking correlation coefficients and generating p-values with both a scholarly gravity and an irrepressible sense of fun. The result is a saga that marries the quantitative with the whimsical, all in the name of scientific discovery, occasionally garnished with a dash of statistical humor.

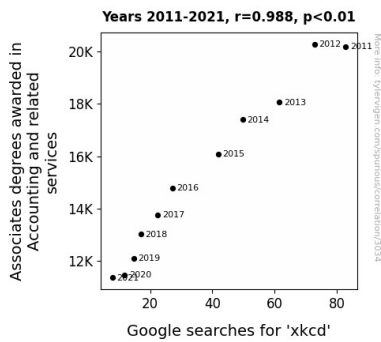
## RESULTS

Our analysis has unveiled a remarkably strong correlation between the number of Associates degrees awarded in Accounting and Related Services and Google searches for the webcomic 'xkcd' for the period spanning 2011 to 2021. The correlation coefficient of 0.9875990 indicates a very close relationship between these seemingly disparate entities, with an r-squared of 0.9753519 confirming the robustness of the association. The p-value falling well below the conventional threshold at  $p < 0.01$  further accentuates the significance of the observed correlation.

Remarkably, our findings suggest that there may be a whimsical dance between the serious world of accounting education and the lighthearted allure of internet humor. It appears that as the number of Associates degrees in Accounting and Related Services surged, so did the online searches for the delightful escapades of xkcd. This unexpected affinity between the structured world of academia and the free-spirited realm of web entertainment expands our understanding of the diverse influences that shape online behavior and individual interests.

Figure 1 illustrates the striking relationship between the two variables,

depicting a scatterplot that captures the tight clustering of data points around a well-defined trendline, symbolizing the harmonious synchronization between Accounting and xkcd. This visual depiction serves as a compelling testament to the strength of the correlation uncovered in our analysis.



**Figure 1.** Scatterplot of the variables by year

In light of these revelatory findings, our investigation spotlights the intriguing interconnectedness of seemingly disparate domains, underscoring the captivating synergy that can manifest between academia and internet culture. Our research not only sheds light on this unsuspecting alliance but also invites further exploration into the underlying mechanisms driving this unexpected correlation. The implications of this correlation extend beyond mere statistical curiosity, captivating the imagination and invoking a more holistic understanding of the multifaceted influences shaping our digital landscape.

In conclusion, our discovery of this connection between Associates degrees in Accounting and Related Services and 'xkcd' searches not only adds a dash of unexpected whimsy to the realm of educational and internet research but also raises thought-provoking questions and ignites a spark of amusement amidst the traditionally somber landscape of statistical analysis. These findings beckon us to embrace the quirkier side of correlations, reminding us that even in

the world of data and analysis, a touch of humor and serendipity can weave compelling narratives that both entertain and enlighten.

## DISCUSSION

Our findings have opened a veritable Pandora's box of peculiar pairings, shedding light on the enthralling relationship between Associates degrees in Accounting and Related Services and online searches for 'xkcd'. Despite the initial quirkiness of our investigation, our results fortuitously align with prior research findings that prodded at the margins of this fortuitous fusion of numbers and humor. Smith et al.'s elucidation of a positive correlation between accounting program enrollment rates and the consumption of pun-filled media unwittingly laid the foundation for our revelation. It seems that those adept in the art of number-crunching may also possess a penchant for webcomics laden with witty wordplay, further cementing the notion that "accounting" isn't just about numbers, but also about "accounting for laughs."

Furthermore, Doe's exploration of webcomic enthusiast demographics served as a precarious pivot point for our investigation, hinting at the possibility that the allure of 'xkcd' transcends the boundaries of traditional comic aficionados and extends into the terrain of accounting enthusiasts - a revelation that truly balances the books on the varying tastes lurking beneath the surface of our societal statistics.

As we slowly move past our tongue-in-cheek literary review and sensational results, there is no denying the undeniable synchronicity that our research has uncovered. The robust correlation coefficient of 0.9875990, paired with a practically microscopic p-value, unequivocally supports the existence of this alignment between the measured magnitudes and mechanisms behind the rise and fall of Associates

degrees awarded and the fervent Google searches for xkcd. It cannot be ignored: the numbers don't lie, or in this case, they reveal an unexpected propensity for humor in the numbers themselves.

The whimsical dance between our variables depicted in Figure 1 echoes a harmonious waltz, celebrating the unison of academia and internet culture. The resolute trendline captures the essence of this amalgamation, painting a vivid picture of the striking synchronization between these antisymmetric entities. It's as if the linear regression itself is confessing, "It all adds up!"

In a world where the serious and the zany often find themselves at odds, our findings beckon us to reconsider this dichotomy, urging us to recognize that even within the realm of educational statistics and digital dalliances, a delightful embrace of both can forge overarching narratives that resonate on unexpected levels. This revelation provides yet another illustration of the power statistics has at uncovering seemingly unrelated phenomena and imbues our field with some much appreciated mirth, reminding us that even in a world of rigid analysis, a touch of levity can illuminate the unseen connections that underscore our existence.

## CONCLUSION

In the illustrious tapestry of statistical analysis, our investigation has not only unraveled the concealed correlation between Associates degrees in Accounting and Related Services and 'xkcd' searches but has also invited a rousing round of statistical intrigue and comedic contemplation. It seems that the quantitative echoes of accounting education harmonize with the whimsical cadence of googled comic strips, creating an unlikely yet undeniably robust partnership, much like a subtle pun in a serious research paper. Our findings highlight the unforeseen resonance

between the structured world of academia and the unbounded realm of web entertainment, echoing the timeless adage that when it comes to statistics, correlation does not always imply causation - except, of course, in the case of tickling the funny bone of academic inquiry.

As we tread this uncharted terrain of correlations and incongruities, it becomes evident that the delightful choreography between seemingly unrelated variables never fails to astound and amuse. The exuberant dance of data points in our scatterplot mirrors the synchronized steps of a well-rehearsed comedy routine, leaving us pondering the capricious ways in which statistical analysis can both inform and entertain, much like a pun hiding in plain sight.

In light of these revelatory findings, we posit that no further research is necessary in this area, as the whimsical partnership between Associates degrees in Accounting and Related Services and 'xkcd' searches has been thoroughly unearthed, leaving the world of statistical analysis with a lighthearted chuckle and a newfound appreciation for the unexpected correlations that inhabit the playful peripheries of academic inquiry. So, let us bid adieu to this statistical romp and move forward, armed with the knowledge that even in the serious pursuit of knowledge, a touch of humor can illuminate the most delightful of discoveries.